

~~SECRET~~

Monthly Report

25X1

PAR 249

31 Dec 68

25X1  
SUBJECT: [ ] Precision Enlarger Prototype (BPE) Operational  
Improvements and Maintenance

TASK/PROBLEM

25X1  
1. Provide photographic enlarger maintenance at the customer's facility for one [ ] Precision Enlarger (BPE) and three 10-20-40X Enlargers.\*

DISCUSSION

2. Contractor personnel visited the customer's facility during the week of 9 December 1968. The purpose of the visit was to perform the one-month preventive maintenance check on the BPE, and the one-month preventive maintenance check on three 10-20-40X Enlargers.\* (See the five accompanying check lists indicating work performed.)

3. During the BPE maintenance check, the "X" coordinate display lamps were found inoperative. The problem was not resolved due to lack of time and the customer work schedule.

4. During the 10-20-40X enlarger maintenance checkout the following malfunctions were found:

- a. S/N 101 requires a static eliminator power unit.
- b. S/N 113 requires a static eliminator power unit.
- c. S/N 119 had no malfunctions.
- d. S/N 123 requires four lamps in the viewer.

The "Y" coordinate gear on S/N 123 was drilled and pinned, and minor adjustments were made on all 10-20-40X enlargers.

\* Note that while the work scope of PAR 249 calls for servicing three 10-20-40X enlargers, contractor service personnel are actually servicing four 10-20-40X enlargers.

Declass Review by NGA.

-1-

~~SECRET~~

GROUP 1

EXCLUDED FROM AUTOMATIC DOWNGRADING  
AND DECLASSIFICATION

**SECRET**

PAR 249

31 Dec 68

PLANNED ACTIVITY

5. During the next visit to the customer's facility, scheduled for 7 January 1969, accomplish the following:

a. Correct malfunctions noted in paragraphs 3 and 4 providing the customer has the necessary parts.

b. Perform one-month preventive maintenance checks on the BPE and four 10-20-40X Enlargers.

**SECRET**

**SECRET****PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST**

PRECISION ENLARGER

Assigned to: \_\_\_\_\_ Date 12/13/68 Machine Serial No. \_\_\_\_\_

✓	Item	Description
---	------	-------------

**Daily Interval**

✓	1	Check the four indicator lamps on the sub-control panel.
✓	2.1	Check closed-negative-gate interlock.
✓	2.2	Check interlock that causes vertical transport slow speed.
✓	2.3	Check interlock that disables negative transport after fluid injection.
✓	2.4	Check operation of microswitch that functions when manual-film-movement knob is pushed in.
✓	3.1	Check the indicator lamps for the two attenuator banks of the easel photometer.
✓	3.2	Check the meter scale illuminator lamp of the easel photometer.
✓	3.3	Check the antifatigue lamp in photo-multiplier tube housing.
✓	4	Clean the glass plates of the negative gate.

**One-Week Interval**

✓	1	Vacuum-clean the enlarger.
✓	2	Check, and if necessary, clean the objective lenses and all glass filters.
✓	3	Vacuum-clean the front surface of the easel.
✓	4	Check the fiber optics for broken fibers.

✓	Item	Description
---	------	-------------

**One-Month Interval**

✓	1	Wax the steel rails of the lens ramp and of the easel.
✓	2	Install new air filter in lamphouse.
✓	3	Clean the nylon brushes of the fluid removal system.
✓	4	Check all tubing and hoses for cracks and air leakage.
✓	5	Check and, if necessary, clean the lenses of the condenser lens assemblies.

**Six-Month Interval**

	1.1	Make a photographic check on all six matching sets of objective and condenser lens assemblies.
	1.2	Be sure that film is tracking properly in both directions on the negative transport system.
	2	Check the timing belts of the film transport system, of the vertical drive system, and of the easel drive assembly for wear.

Checked by: \_\_\_\_\_ Date 12/13/68

Changed 2/68

## RE MARKS:

1. X Coordinate lamps out.
2. Tape (rubberized) strips needed on right metering roller.
3. Fluid ejection pumps adjusted.
4. Immersion fluid in use has suspended solids.

**SECRET**

~~SECRET~~**PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST**

ONE-MONTH INTERVAL

PRECISION ENLARGER, 10-20-40X

Assigned To: 

25X1

Date: 12/12/68

Machine Serial No. 

25X1

✓	Item	Description	✓	Item	Description
	1	Film Transport		8	Vacuum Pump Assembly
✓	1.1	Static Removal Unit	✓	8.1	Hoses and Couplings
✓	1.2	Guide Roller Flanges	✓	8.2	Pump
✓	1.3	Air Knives	✓	8.3	Oil Level
✓	1.4	Belts and Pulleys		9	Lamp House Assembly
✓	1.5	Lubricate Bearings	✓	9.1	Housing
	2	Easel and Stencil Assembly	✓	9.2	Filter (Photographic)
✓	2.1	Easel	✓	9.3	Light Leaks
	2.2	Air Pressure System	✓	9.4	Lamp House Blower
	3	Illuminator		10	Immersion System
✓	3.1	Glass	✓	10.1	Ejectors
✓	3.2	Lamps	✓	10.2	Hoses and Couplings
✓	4	Negative Gate Interlock	✓	10.3	Blower
✓	5	Lenses	✓	10.4	Fluid Level
✓	6	Stripper Plate	✓	11	Lamp House Control
	7	Air Pressure System	✓	12	Analyzer
✓	7.1	Air Lines		13	Photo Check
✓	7.2	Compressor Control	✓	13.1	Resolution
✓	7.3	Relief Valve	✓	13.2	Uniformity
✓	7.4	Regulator	✓	14	General Inspection
✓	7.5	Filter-Compressor			
	7.6	Drain Storage Tank			

Initials JB/CP

## REMARKS:

Form No. MS-103

March 26, 1966

1. Dash pots filled with Dow 200 fluid.
2. Static eliminator power unit, Model A-2 needs replacement.
3. Guide roller flanges too tight and one flange reversed.

~~SECRET~~

**SECRET****PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST**

ONE-MONTH INTERVAL

PRECISION ENLARGER, 10-20-40X

Assigned To:  25X1

Date: 12/12/68

Machine Serial No.  25X1

✓	Item	Description	✓	Item	Description
	1	Film Transport		8	Vacuum Pump Assembly
✓	1.1	Static Removal Unit	✓	8.1	Hoses and Couplings
✓	1.2	Guide Roller Flanges	✓	8.2	Pump
✓	1.3	Air Knives	✓	8.3	Oil Level
✓	1.4	Belts and Pulleys		9	Lamp House Assembly
✓	1.5	Lubricate Bearings	✓	9.1	Housing
	2	Easel and Stencil Assembly	✓	9.2	Filter (Photographic)
✓	2.1	Easel	✓	9.3	Light Leaks
✓	2.2	Air Pressure System	✓	9.4	Lamp House Blower
	3	Illuminator		10	Immersion System
✓	3.1	Glass	✓	10.1	Ejectors
✓	3.2	Lamps	✓	10.2	Hoses and Couplings
✓	4	Negative Gate Interlock	✓	10.3	Blower
✓	5	Lenses	✓	10.4	Fluid Level
✓	6	Stripper Plate	✓	11	Lamp House Control
	7	Air Pressure System	✓	12	Analyzer
✓	7.1	Air Lines	✓	13	Photo Check
✓	7.2	Compressor Control		13.1	Resolution
✓	7.3	Relief Valve		13.2	Uniformity
✓	7.4	Regulator	✓	14	General Inspection
✓	7.5	Filter-Compressor			
✓	7.6	Drain Storage Tank			

Initials JB/CP

## REMARKS:

1. Right tension arm cable frayed.
2. Dash pots filled with Dow 200 fluid.
3. Tension arms adjusted.
4. Felt pad on lamphouse (right side) needs replacement.
5. Static eliminator unit inoperable.

Form No. MS-103

March 26, 1966

**SECRET**GROUP 1  
EXCLUDED FROM AUTOMATIC DOWNGRADING  
AND DECLASSIFICATION

**SECRET****PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST**

ONE-MONTH INTERVAL

PRECISION ENLARGER, 10-20-40X

Assigned To: 

25X1

Date: 12/12/68Machine Serial No. 

25X1

✓	Item	Description	✓	Item	Description
	1	Film Transport		8	Vacuum Pump Assembly
✓	1.1	Static Removal Unit	✓	8.1	Hoses and Couplings
✓	1.2	Guide Roller Flanges	✓	8.2	Pump
✓	1.3	Air Knives	✓	8.3	Oil Level
✓	1.4	Belts and Pulleys		9	Lamp House Assembly
✓	1.5	Lubricate Bearings	✓	9.1	Housing
	2	Easel and Stencil Assembly	✓	9.2	Filter (Photographic)
✓	2.1	Easel	✓	9.3	Light Leaks
✓	2.2	Air Pressure System	✓	9.4	Lamp House Blower
	3	Illuminator		10	Immersion System
✓	3.1	Glass	✓	10.1	Ejectors
✓	3.2	Lamps	✓	10.2	Hoses and Couplings
✓	4	Negative Gate Interlock	✓	10.3	Blower
✓	5	Lenses	✓	10.4	Fluid Level
✓	6	Stripper Plate	✓	11	Lamp House Control
	7	Air Pressure System	✓	12	Analyzer
✓	7.1	Air Lines		13	Photo Check
✓	7.2	Compressor Control		13.1	Resolution
✓	7.3	Relief Valve	✓	13.2	Uniformity
✓	7.4	Regulator	✓	14	General Inspection
✓	7.5	Filter-Compressor			
✓	7.6	Drain Storage Tank			

Initials JB/CP

## REMARKS:

1. Take-up supply spindle belt bad.
2. Dash pots filled with Dow 200 fluid.

Form No. MS-103

March 26, 1966

**SECRET**

**SECRET****PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST**

ONE-MONTH INTERVAL

PRECISION ENLARGER, 10-20-40X

Assigned To: 

25X1

Date: 12/12/68

Machine Serial No. 

25X1

✓	Item	Description	✓	Item	Description
	1	Film Transport		8	Vacuum Pump Assembly
✓	1.1	Static Removal Unit	NA	8.1	Hoses and Couplings
✓	1.2	Guide Roller Flanges	NA	8.2	Pump
✓	1.3	Air Knives	NA	8.3	Oil Level
✓	1.4	Belts and Pulleys		9	Lamp House Assembly
✓	1.5	Lubricate Bearings	✓	9.1	Housing
	2	Easel and Stencil Assembly	✓	9.2	Filter (Photographic)
✓	2.1	Easel	✓	9.3	Light Leaks
✓	2.2	Air Pressure System	✓	9.4	Lamp House Blower
	3	Illuminator		10	Immersion System
✓	3.1	Glass		10.1	Ejectors
✓	3.2	Lamps	✓	10.2	Hoses and Couplings
✓	4	Negative Gate Interlock	✓	10.3	Blower
✓	5	Lenses	✓	10.4	Fluid Level
✓	6	Stripper Plate	✓	11	Lamp House Control
	7	Air Pressure System	✓	12	Analyzer
✓	7.1	Air Lines	✓	13	Photo Check
✓	7.2	Compressor Control		13.1	Resolution
	7.3	Relief Valve	✓	13.2	Uniformity
✓	7.4	Regulator	✓	14	General Inspection
	7.5	Filter-Compressor			
	7.6	Drain Storage Tank			

Initials JB/CP

## REMARKS:

1. Illuminator needs four lamps.
2. Loop switch actuators adjusted.
3. Tension arms adjusted.
4. Y Coordinate counter gear pinned.
5. Dash pots filled with Dow 200 fluid.

Form No. MS-103

March 26, 1966

**SECRET**